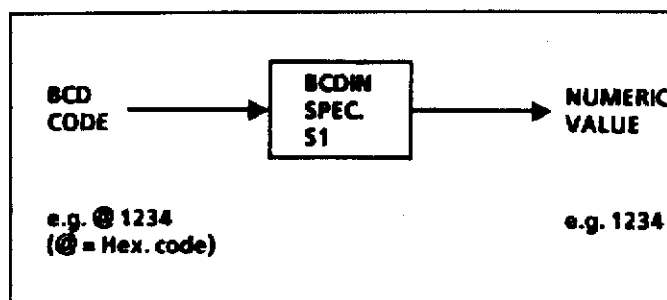


## BCDIN Function for BCD Input Conversion

## BCDIN S1

### DESCRIPTION

The BCDIN function provides code conversion for Binary Coded Decimal (BCD) input devices up to 4 decades.



### FEATURES

- Suitable for decade thumbwheel switches
- Automatic fault detection for non-BCD digits

### SPECIFICATION

Control language:-

```

      BCDIN
X-----SPEC-----Q
      S1
  
```

**Table 1**      **Program rung data**

| Sym | Location    | Use                             | Range                          |
|-----|-------------|---------------------------------|--------------------------------|
| X   | Rung Input  | BCD coded input                 | 1 to 4 decades<br>8-4-2-1 code |
| Q   | Rung Output | Decoded output or<br>fault code | 0 to +9999<br>-1 = fault       |

**Table 2**      **Fault conditions**

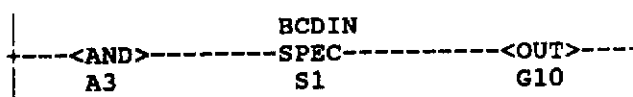
| Condition                              | Rung Output |
|----------------------------------------|-------------|
| Programming error. VALUE after SPEC.   | -1          |
| NON-BCD digit (@A to @F) in rung input | -1          |

Note: The VALUE after SPEC condition does not produce a Rung output of -1 in the GEM80/141 or GEM80/163 systems. A GEM80/141 system ignores the component completely but a GEM80/163 system rejects the rung at the recompile stage.

## APPLICATION NOTES

### 1. Example

A thumbwheel input unit type 8944 is connected as input A3. This rung decodes and stores the input value in location G10.



The sign of the output in this example may be used to switch on an alarm since only fault conditions give a negative output.



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Note: The Company's policy is one of continuous development. Products supplied may differ from those described herein